<u>REMARKS</u>

Claims 1-36 remain pending in this application, all of which stand rejected. Based on the

foregoing amendments and following remarks, reconsideration and allowance of this application is

respectfully requested.

Specification Objection

The disclosure has been objected to as not providing a serial number in paragraph [00183].

The Examiner is directed to the previous amendment and response, which amends paragraph

[00183] to include the missing serial number. As such, Applicant respectfully requests withdrawal

of the specification objection.

Drawing Objections-37 C.F.R. §1.121(d)

Fig. 1 stands objected to as not be labeled as prior art. Accordingly, Fig. 1 has been amended

to correct this informality. As such, Applicant respectfully requests withdrawal of the objections to

Fig. 1.

Claim Rejections-35 U.S.C. §102

Claims 1-36 stand rejected under 35 U.S.C. §102(e), as being anticipated by U.S. Patent No.

6,579,651 issued to Subramanian et al. ("Subramanian"). Applicant respectfully traverses this

rejection, since Subramanian does not disclose each and every element required by these claims.

Independent claims 1 and 22 require using information for <u>interfeature relationships</u> of the

<u>integrated circuit design data</u> to write the mask. Independent claims 6 and 27 require using context

information for <u>features in integrated circuit design data</u> to write the features of a mask or printed

wafer. Independent claim 16 requires producing mask contextual information for mask elements in

the mask design database based on the <u>circuit contextual information</u>. Independent claim 19 requires analyzing integrated circuit design data for each mask element.

In contrast, Subramanian does not disclose analyzing or otherwise using the context data of circuit design data in the mask writing process. Rather, Subramanian uses area loss data 130' calculated from the difference between the layout data 10 and the mask features 20, and then uses the lost data to generate sizing correction data 160 to write a corrected mask 180. To the extent that the Examiner considers the loss data 130' to be contextual information, it is not contextual circuit design data, but rather contextual mask layout data. That is, the lost data 130' does not provide any information on the underlying circuit design data that is generated prior to the mask layout process.

In addition, with respect to independent claims 1 and 22, there is no apparent disclosure in Subramanian that provides for using interfeature contextual information, whether related to circuit design data or mask layout data, to facilitate the mask writing process. If the Examiner believes otherwise, he is requested to specifically elaborate on where such interfeature contextual information can be found in the Fig. 5 embodiments of Subramanian.

In addition, there are many more features in the independent and dependent claims where the Examiner states is somewhere in the background of Subramanian. Not only has Applicant failed to find many of these features, the Examiner has not related such features to the Fig. 5 embodiments of Subramanian on which he primarily relies on for anticipation. Significantly, a case of anticipation requires that the claimed <u>combination</u> be disclosed in a single reference. Applicant submits that the Examiner has not made a prima facie case that such claimed combinations are disclosed in Subramanian when he merely searches through a specification to find elements without relating these elements to each other in a combination. In other words, if the Examiner relies on the Fig. 5

embodiments to make a case of anticipation, then he must find all features of the claimed

combination within a particular embodiment; in this case, one of the Fig. 5 embodiments. To the

extent that the Examiner relies on disclosure in the background that is not inherent in the Fig. 5

embodiments, the Examiner must rely on obviousness by relating those features found in the

background with the Fig. 5 embodiments. However, by merely referring to features in the

background in the Subramanian (even assuming that they are there) without relating them to the Fig.

5 embodiments, the Examiner has not made out a prima facie case of anticipation or obviousness.

Claims 3 and 24 require the interfeature contextual relationships to be across multiple layers.

The Examiner generally refers to the background of Subramanian to support the conclusion that

Subramanian discloses this feature. However, Applicant can find no disclosure in the background

where interfeature contextual information across multiple layers is analyzed or otherwise used to

facilitate a mask writing process. Indeed, if the lost data 130' is what the Examiner refers to as

being the interfeature contextual relationship information, it would make no sense for such lost data

130' to refer to multiple layers. If the Examiner believes otherwise, he is requested to specifically

elaborate where such multi-layer interfeature contextual information can be found in the Fig. 5

embodiments of Subramanian.

Claims 4 and 25 require the interfeature relationships to be electronic in nature. Again,

Examiner generally refers to the background of Subramanian to support the conclusion that

Subramanian discloses this feature. And again, Applicant can find no disclosure in the background

where electronic interfeature contextual information is analyzed or otherwise used to facilitate a

mask writing process. Indeed, if the lost data 130' is what the Examiner refers to as being the

interfeature contextual relationship information, it would make no sense for such lost data 130' to

have some type of electronic relationship with itself. If the Examiner believes otherwise, he is requested to specifically elaborate where electronic interfeature contextual information can be found in the Fig. 5 embodiments of Subramanian.

Claims 7 and 28 require the mask features to be analyzed for contextual priority. Again, the Examiner generally refers to the background of Subramanian to support the conclusion that Subramanian discloses this feature. And again, Applicant can find no disclosure in the background where mask features are analyzed for contextual priority. If the Examiner believes otherwise, he is requested to specifically elaborate where the analysis of mask features for contextual priority can be found in the Fig. 5 embodiments of Subramanian.

Claims 8, 18, and 29 require the mask features to be assigned priorities. Claims 9 and 30 additionally require the priority assignment to comprise applying criteria to mask design data by manual process. This time, the Examiner generally refers to Figs. 5a-5d and the corresponding text to support the conclusion that Subramanian discloses these features. However, Applicant can find no such disclosure in the text corresponding to the Fig. 5 embodiments where priorities are assigned to the mask features, and cannot find any disclosure where priorities are assigned to mask data using a manual process. If the Examiner believes otherwise, he is requested to specifically elaborate where the assignment of priorities to mask features can be found in the Fig. 5 embodiments of Subramanian.

Claims 13 and 34 require the mask design database to optimize an order of mask design data. The Examiner generally refers to the text corresponding to Figs. 5b-5d to support the conclusion that Subramanian discloses this feature. However, Applicant can find no such disclosure in the text corresponding to the Fig. 5 embodiments where the order of mask design data is optimized. If the

Examiner believes otherwise, he is requested to specifically elaborate where such optimized mask design data ordering can be found in the Fig. 5 embodiments of Subramanian.

Claim 19 requires the design data for each mask element to be analyzed to determine a circuit function, circuit criticality context, and priority for each mask element. The Examiner generally refers to the text corresponding to Figs. 5b-5d, the background, and the summary to support the conclusion that Subramanian discloses these features. However, Applicant can find so such disclosure in the Subramanian where the design data is analyzed to determine circuit function, circuit criticality context, and priority for each mask element. If the Examiner believes otherwise, he is requested to specifically elaborate where such features can be found in the Fig. 5 embodiments of Subramanian.

Claim 20 requires the circuit design data to include circuit functionality and circuit criticality data for each mask element. The Examiner generally refers to the background of Subramanian to support the conclusion that Subramanian discloses this feature. Applicant can find no disclosure in the background where the circuit design data includes circuit functionality and circuit criticality data for each mask element. If the Examiner believes otherwise, he is requested to specifically elaborate where such circuit functionality and circuit criticality data can be found in the circuit design data provided to the Fig. 5 embodiments of Subramanian.

Claim 21 requires the design data for each mask element to be compared to design data for other mask elements and to a predetermined set of mask criteria. The Examiner generally refers to the background of Subramanian to support the conclusion that Subramanian discloses this feature. Applicant can find no disclosure in the background where the mask element design data is compared with other mask element design data and a predetermined set of mask criteria. If the Examiner

believes otherwise, he is requested to specifically elaborate where such mask element design data comparison can be found in the Fig. 5 embodiments of Subramanian.

Thus, Applicant submits that independent claims 1, 6, 16, 19, 22, and 27, as well as the claims depending therefrom (claims 2-5, 7-15, 17, 18, 20, 21, 23-26, and 28-36), are not anticipated by Subramanian, and as such, respectfully request withdrawal of the §102 rejections of these claims.

Conclusion

Based on the foregoing, it is believed that, with entry of this amendment, all claims are now allowable and a Notice of Allowance is respectfully requested. If the Examiner has any questions or comments regarding this amendment, the Examiner is respectfully requested to contact the undersigned at (714) 830-0600.

Respectfully submitted,

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DRAWING AMENDMENTS

Please amend Fig. 1 as shown in the marked-up substitute drawing sheet attached hereto.